

Customer No.: 31561
Docket No.: 12790-US-PA
Application No.: 10/709,609

AMENDMENT

In the Claims:

Please amend the claims according to the following listing of claims and substitute it for all prior versions and listings of claims in the application.

1. (Original) A data compression/decompression device, suitable for compressing/decompressing a data transmitted between a data generation device and a data storage device, comprising:

an input buffer, for buffering and storing said data for input;

an output buffer, for buffering and storing said data for output;

a data compressor/decompressor, coupled to said output buffer, for compressing/decompressing said data for input and storing said data for output in said output buffer; and

a controller, coupled to said input buffer, said output buffer and said data compressor/decompressor, for controlling data transmission with said data generation device and said data storage device, controlling compressing/decompressing said data, and managing an address mapping table which is the cross reference between an access address transmitted from said data generation device and a physical address of storing the data in said data storage device.

2. (Currently amended) The device of claim 1, wherein said controller includes:

a data generation control unit, for controlling data transmission with said data generation device;

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a data storage control unit, for controlling data transmission with said data storage device;
a data [~~extracter~~] extractor, for obtaining said data from said input buffer, extracting a compressing/decompressing portion of said data , and sending said compressing/decompressing portion of said data to said data compressor/decompressor; and

a main control unit, for coordinating and controlling said data generation control unit, said data storage control unit, and said data [~~extracter~~] extractor, and for managing said address mapping table.

3. (Original) The device of claim 1, wherein said data generation device is at least one of a host, a laptop computer, a microprocessor, an interface card and a router.

4. (Original) The device of claim 1, wherein said data storage device is at least one of a hard disk drive, a floppy disk drive, a CD-RW drive, a magnetic-optical device, a digital video recorder and a flash memory card.

5. (Original) A system applying a data compression/decompression device, comprising:

a data storage device, having a data transmission interface;

a data generation device, accessing a data in said data storage device via said data transmission interface; and

a data compression/decompression device, coupled to said data storage device and said data generation device via said data transmission interface, for compressing/decompressing said data transmitted between said data storage device and said data generation device and managing

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an address mapping table which is the cross reference between an access address transmitted from said data generation and a physical address of storing said data in said data storage device.

6. (Original) The device of claim 5, wherein said data compression/decompression device includes:

- an input buffer, for buffering and storing said data for input;
- an output buffer, for buffering and storing said data for output;
- a data compressor/decompressor, coupled to said output buffer, for compressing/decompressing said data for input and storing said data for output in said output buffer; and

- a controller, coupled to said input buffer, said output buffer, and said data compressor/decompressor, for controlling data transmission with said data generation device and said data storage device, controlling compressing/decompressing said data, and managing said address mapping table.

7. (Currently Amended) The system of claim 6, wherein said controller includes:

- a data generation control unit, for controlling data transmission with said data generation device;

- a data storage control unit, for controlling data transmission with said data storage device;

- a data ~~[extracter]~~ extractor, for obtaining said data from said input buffer, extracting a compressing/decompressing portion of said data, and sending said compressing/decompressing portion of said data to said data compressor/decompressor; and

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a main control unit, for coordinating and controlling said data generation control unit, said data storage control unit, and said data [~~extracter~~] extractor, and for managing said address mapping table.

8. (Original) The system of claim 5, wherein said data generation device is at least one of a host, a laptop computer, a microprocessor, an interface card and a router.

9. (Original) The system of claim 5, wherein said data storage device is at least one of a hard disk drive, a floppy disk drive, a CD-RW drive, a magnetic-optical device, a digital video recorder and a flash memory card.

10. (Original) The system of claim 5, wherein said data transmission interface is one of an IDE interface, a 1394 interface, a SCSI interface, a serial ATA interface, a serial attached SCSI interface, a PCMCIA interface and a USB interface.